^{238}U(p,X): $\Delta<r^2>$ 2013Se03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong and Kang Mengxiao	NDS 121, 395 (2014)	1-Mar-2014

2013SE03: Beam of ^{195}Po produced at the CERN ISOLDE facility by impinging 1.4 GeV protons on a 50 g/cm^2 thick, UC_x target. Reaction products diffused out and transferred to the RILIS. Deduced nuclear charge radius from the measured isotope shifts.

^{195}Po Levels

Systematic uncertainties in $\Delta<r^2>$ arising from electronic factor and mass-shift calculations are not included. Their magnitude is similar to the quoted experimental uncertainty.

E(level)†	Jπ†	Comments
0.0	(3/2$^-$)	$\Delta<r^2>(^{195}Po,^{196}Po)=-0.29$ GHz *15*. $\Delta<r^2>(^{195}Po,^{210}Po)=-0.604$ fm^2 *13*. $<\beta_2^2>^{1/2}=0.18$.
≈230	(13/2$^+$)	$\Delta<r^2>(^{195}Po,^{196}Po)=-0.61$ GHz *15*. $\Delta<r^2>(^{195}Po,^{210}Po)=-0.575$ fm^2 *13*. $<\beta_2^2>^{1/2}=0.18$.

† From Adopted Levels.